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SCIENCE AND INDUSTRY

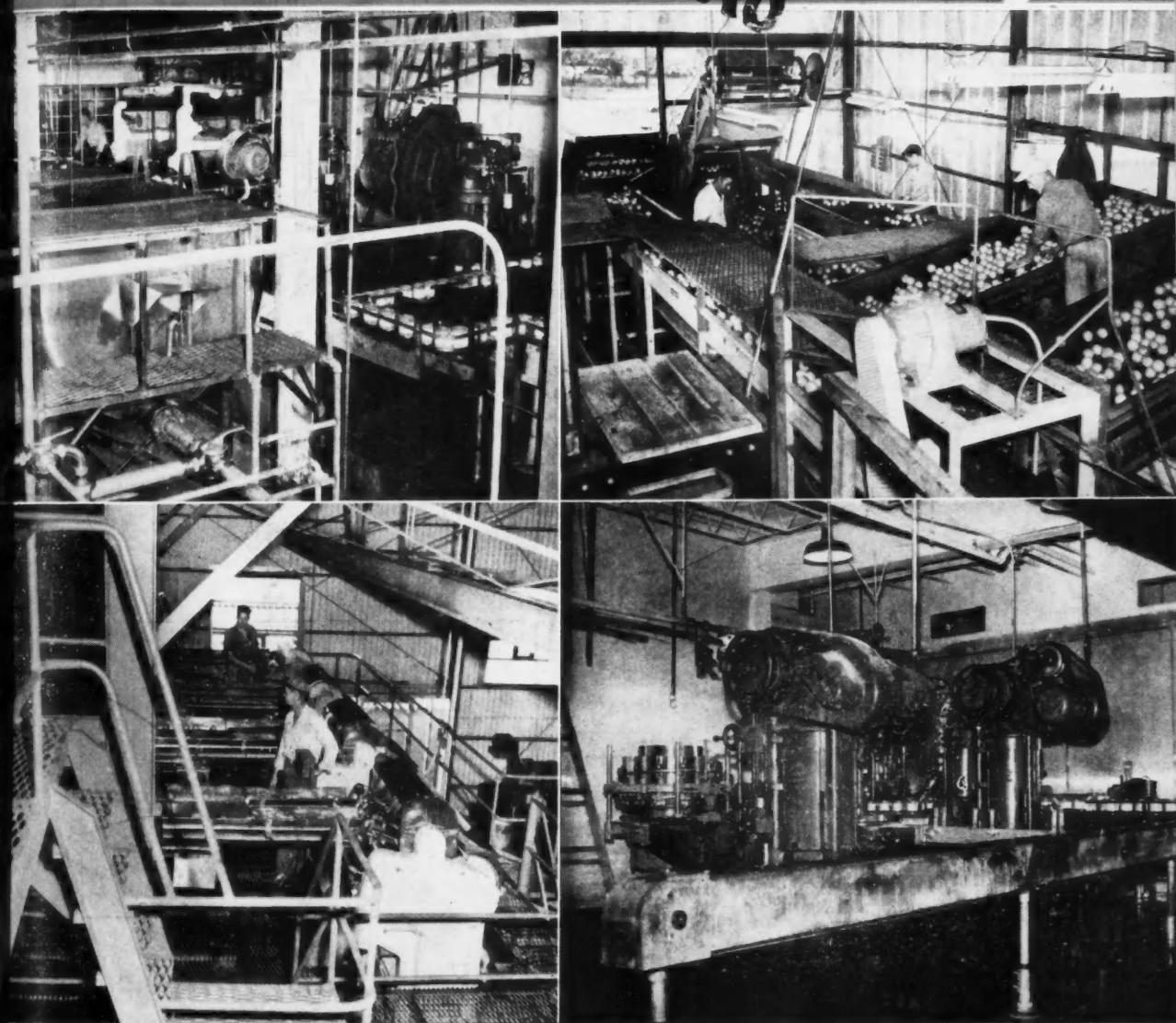
MAR 18 1952

Citrus Industry

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Representing No Special Interest

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This Month }
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Are Wind Machines Suitable For Florida?
Should Citrus Be Sold By The Pound?

Shown above are four separate operations of the Holly Hill Fruit Products, Inc., frozen orange juice concentrate plant in operation at Davenport, Florida.

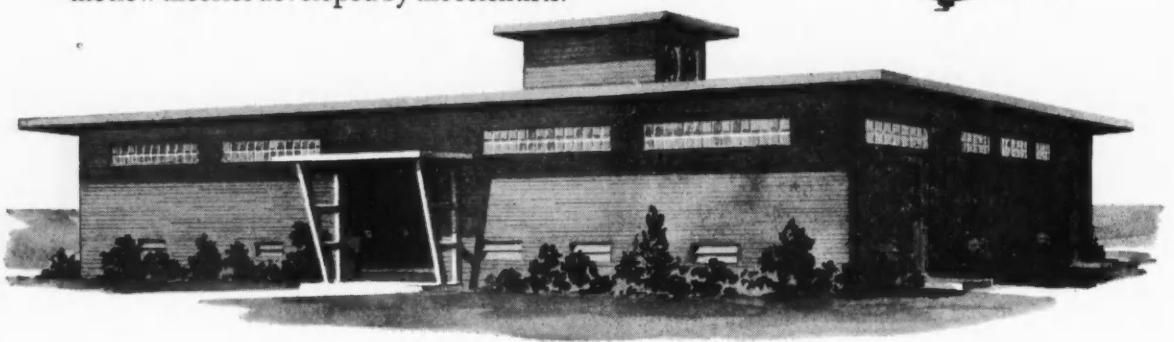
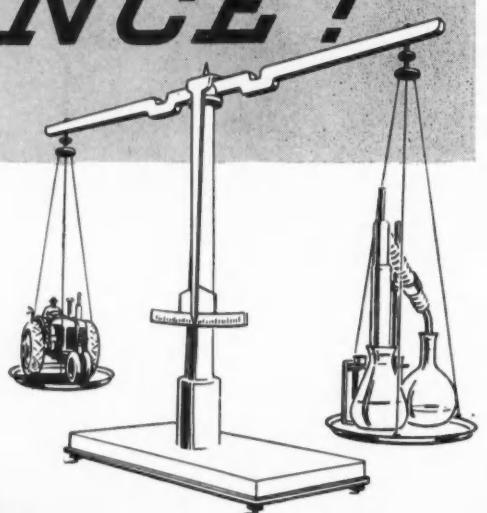
Vol. 33, No. 3

Bartow, Florida

March, 1952

IN BALANCE!

This new laboratory, which houses the research activities and manufacturing control of both the Wilson & Toomer Fertilizer Company and the Florida Agricultural Supply Company, has a special significance for you. It helps to keep what we learn from your practical experience in balance with the new theories developed by the scientists.



Here the experiments conducted by agricultural scientists are carefully studied. Here field reports are weighed. The result is that the recommendations for your use of IDEAL Fertilizers and FASCO Pesticides are based on the most up-to-date thinking available. This great new laboratory is just another reason why IDEAL Fertilizers and FASCO Pesticides are

F A S C O G R A M :

Ovctran is the new, better miticide for Florida citrus — safe at recommended dosages on tender new growth of citrus against purple and six-spotted mites.

Your Profit Combination for Crop Feeding and Protection

WILSON & TOOMER
FERTILIZER COMPANY
and Divisions
FLORIDA AGRICULTURAL SUPPLY COMPANY
Peninsular Fertilizer Works — Tampa
GENERAL OFFICES • JACKSONVILLE, FLORIDA

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Citrus Insect Control For March, 1952

R. M. PRATT & W. L. THOMPSON*
FLORIDA CITRUS EXPERIMENT
STATION, LAKE ALFRED

There has been a substantial increase in red scale activity during February, and although there has been a leveling off at the time this is written, a further increase is expected in many groves before the post-bloom spray can be applied. This scale is much more abundant than it was a year ago. Purple scale also has been increasing during the past two months and further increase is expected, although it will probably not present as serious a problem as red scale during the period of spring growth.

Purple mite activity has been declining somewhat during the past three weeks after an early build-up to a high level but it may increase substantially during the growing period, particularly if the weather is dry.

Rust mite populations are declining at the present and this mite will probably not be as troublesome during March as the scales and purple mite.

Because the growing period will probably be prolonged this year, aphids are likely to be a problem on young trees.

Spray Programs

One of the most important periods of the year is now approaching for the control of insects, mites, and diseases. Unless the weather remains cool, post-bloom spray applications will be made during the last half of March and early April. As indicated in the discussion on the infestation levels of the various insects and mites, we are going into the spring with fairly high levels of Florida red scale, purple mite and to a certain extent purple scale. Since "economy" is the watchword of most growers at present, it is desirable to use the most efficient combination spray and correct timing of applications. Poor timing of sprays results in higher costs and lower quality of fruit.

During the post-bloom period items to be considered are scale, mite and disease control, the application of the

nutritional sprays, and the use of lead arsenate on grapefruit trees where it is desired. Since conditions in groves vary in regard to scale and mite infestations, the condition of each individual grove should be determined before buying scalecides and miticides.

Scale Control: Many groves should be sprayed for scale during the post-bloom period. There are now two scalecides to choose from, oil emulsions and parathion. Where only scale, purple mite, melanose and scab are considered, a combination of a copper-oil is very effective; for grapefruit, arsenate of lead can be added if desired. Refer to the discussion of copper-oil in the Spray Schedule for directions on mixing copper compounds with oil emulsions. Timing is important where an oil spray is to be applied on oranges. The application should be made before the average fruit size reaches three-fourths of an inch in diameter. Oil applications applied when the average orange sizes are between three-fourths of an inch to one-and-one-half inches are likely to cause an injury called oil blotch which is a definite grade lowering factor. Oil sprays will also prevent degreening of mature Valencias.

Parathion can be used instead of oil in any of the above spray com-

binations. Parathion should be used where the so-called full or complete nutritional spray is to be applied and scale control is desired; also where rust mite control is necessary. Parathion is safer and more effective than oil in a spray containing a number of inert materials such as compounds of copper, zinc, manganese, boron, and arsenic as well as sulfur and the DN compounds. In groves where there is a light to medium infestation of scale use one pound of parathion but for heavy infestations 1 2/3 to 2 pounds per 100 gallons should be used. Thorough applications are essential for scale control.

Purple Mite Control: During the spring the most effective and safest miticide has been oil emulsion but there are limitations in its use which have been discussed under scale control. DN 111 did not cause any appreciable amount of injury last year where it was applied in the post-bloom spray. DN-sulfur dust is also fairly safe. Ovotran, which is a new miticide, has proven the most effective of the organic miticides for purple mite control. During warm weather use 1 1/2 pounds of Ovotran per 100 gallons. Neotran is safe and effective at 2 pounds per 100 gallons. Both Ovotran and Neotran have proven safe when applied during the post-



* Written February 25, 1952. Reports of surveys by Harold Holtsberg, Cocoa; J. W. Davis, Tavares; K. G. Townsend, Tampa; J. B. Weeks, Avon Park; and T. B. Hallam, Lake Alfred.

bloom period and they are compatible in the spray combinations.

Rust Mite Control: Rust mite control is very important during the post-bloom period for the prevention of early rust mite injury on the fruit and greasy spot on the leaves. One gallon of lime-sulfur plus 5 to 6 pounds of wettable sulfur results in the longest period of control but where it is not practical to use lime-sulfur, as with DN compounds, use wettable sulfur 10 lbs. to the 100. Regardless of the type of sulfur used, the tops of the trees should be well covered to obtain the maximum period of control.

Six-spotted mites have been observed in a few groves. They can be controlled with any of the materials recommended for purple mite control.

Aphids should be controlled in young groves. Treat before a heavy infestation develops to prevent the curling of the leaves, using either nicotine sulfate, TEP, or BHC as recommended by the manufacturer. Where mealybugs are a problem, parathion should be used.

Timely Suggestions for Post-Bloom Sprays: Wherever red scale is present, include a scalicide in the post-bloom spray. Where arsenate is to be used on grapefruit, include it in the post-bloom spray so that a later April or May application will not be necessary. Scale control has not been satisfactory where growers have sprayed in May with oil. The abnormal rainy weather is favorable for the development of scab so in areas where scab is prevalent the copper application should be made when % of the petals have dropped.

Consult the 1952 Spray Schedule for detailed instructions on dilutions and spray combinations or the Citrus Experiment Stations at Lake Alfred or Fort Pierce.

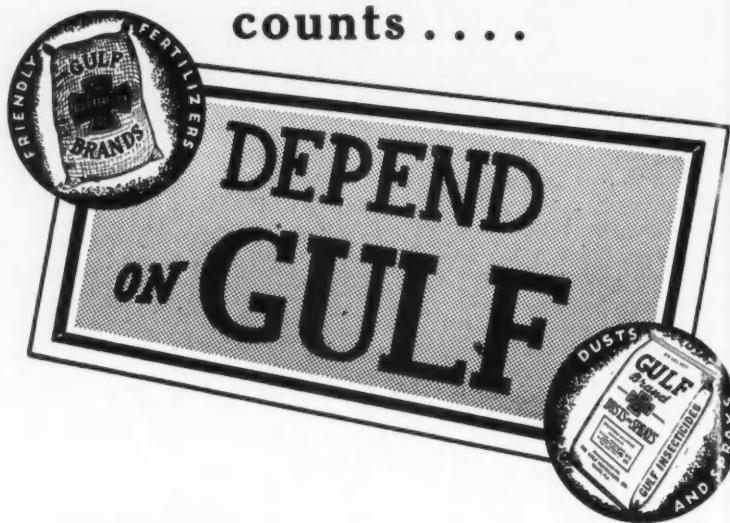
FLORIDA SEEDLINGS GO TO THAILAND

Whether Florida citrus will thrive in faraway Thailand (Siam) will soon be determined.

Fifteen seedlings of Florida's famous Indian River citrus are being flown from New York to Bangkok by Pan American World Airways. They are consigned to Kiet and Son Company, a firm that is conducting many agricultural experiments.

The nursery stock is from the groves of W. R. Duncan of Vero Beach, Florida, who is shipping nine budded orange stock plants, three sour seedlings and three rough lemon seedlings.

For experience that
counts . . .



When conditions call for extra care in planning your grove-care program, DEPEND ON GULF to help you produce quality fruit at safe economical cost. Experience has the answer whether "short cuts" might cut short benefits of previous good practices in grove maintenance and crop production. Ask the GULF Field Man in your section to call now and talk over the needs of your trees and the crop ahead.

GULF friendly FERTILIZERS



ALSO USE GULF Brand
DUSTS AND SPRAYS

THE GULF FERTILIZER COMPANY
Tampa and Port Everglades, Florida



Publication office at Bartow, Florida. Entered as second class matter February 16, 1929, at the post office at Tampa, Florida, under the act of March 3, 1879. Entered as second class matter June 19, 1933, at the post office at Bartow, Florida, under act of March 3, 1879.

Association Makes Strong Plea For "Sell-It-By-The-Pound"

BOB RUTLEDGE
EXECUTIVE DIRECTOR

The United Growers & Shippers Association's industry "Sell-It-By-The-Pound" Committee meeting which was held in Winter Haven passed a strong resolution directed to the Florida Citrus Commission's Advertising Committee. The Resolution, in effect, said: "The industry 'Sell-It-By-The-Pound' committee command you for your action taken in surveying three markets, Washington, D. C., St. Louis, Missouri, and Memphis, Tennessee, in order to determine the feasibility of spending money to educate the consumers in these markets as to the advantages of buying Florida oranges by the pound. We further hope that sufficient factual data will be available for your use concerning pound selling before next season's advertising schedule is approved."

At this meeting Bob Rutledge, Executive Director, stated: "All segments of the industry from the grower to the consumer are interested in obtaining factual results which will either prove or disprove our contention that if Florida citrus is promoted and sold by the pound it will result in an increase in the national consumption of our product."

Mr. Frank Roper, a member of the Commission's Advertising Committee and co-chairman with John Welsh of American Growers of the "Sell-It-By-The-Pound" committee expressed a strong conviction that for the first time a complete follow-through on

selling Florida oranges by the pound will be insisted upon by United Grower & Shippers Association and the over-all Industry Committee."

Charles Irregang, Sr., a well known Florida citrus man and head of a prominent Chicago auction company stated: "The best way to sell Florida citrus is by the pound. In my opinion it will result in selling more fruit."

Mr. W. C. Pedersen, President of Waverly Growers Cooperative, said: "Our problem now is lack of consumption. I think pound selling will increase consumption as it has all other lines of produce, such as pears, apples, grapes, etc. These various industries, including the banana industry, have all experienced an increase in sales when they began pricing their products by the pound. Our industry is behind the times when it does not push pound selling."

Mr. Joe Strickland, head of the fresh fruit division of Florida Citrus Mutual, stated: "We have juice and weight to sell and these advantages should be pointed out to the consumer. The biggest advantage in completely putting over the pound selling idea would be to the Florida shipper by making it possible to take orders for a run of sizes rather than to continue experiencing the costly discount

practices that have always been a headache. I think it would increase their sales, thus consumption of Florida citrus."

Mr. John Welsh said: "With the aid of the Florida Citrus Commission in adequately educating the consumer to the advantages of buying by the pound I am convinced that the result would be increased consumption of Florida citrus. The field men of the Commission and of the many sales agencies that sell Florida citrus would be invaluable in explaining the advantages to the trade."

Mr. Ralph Henry, Advertising Manager of the Florida Citrus Commission, presented a lengthy report on what their representatives had disclosed in St. Louis, where there was a great diversity of opinion of the trade on selling citrus by the pound. He further stated, however, that the same type of survey would be conducted in Memphis, Tennessee, and Washington, D. C., during the last week of February.

Mr. Babe Prevatt, President of the Florida Citrus Exchange, said: "I am 100 percent behind the pound selling idea. I will lend every effort necessary to help this idea along."

Rutledge further stated that he had talked to a prominent citrus man who had just completed a 3500 mile trip through the South and Southwest markets and that there were only two

(Continued on Page 6)

Kumquat -- The Pee-Wee Orange . . .

By WM. EARNEST McCLEARY

Among the citrus fruits, the Kumquat might be well-named "the wee orange" because of its unique smallness. Perhaps, its tiny size has caused its neglect commercially. Whether or not this is so, it is interesting to note some of the handsome mite's characteristics.

Quite ornamental, the bright orange-yellow fruit is similar to the size and shape of the olive, and having sweet rind and watery, acidulous pulp. Its much-branched tree is small and shapely, with dense dark green foliage and pure white orange-like blossoms standing singly or clustered in the leaf-axils. It rarely attains a height of more than 8 or 10 feet in the open.

As they are very prolific and hardy they are excellent for open-yard culture in the Gulf coast area, Southern California, and, for the tub culture, in more temperate-zone regions.

The kumquat (kum'kwot) a genus of shrubs, *Fortunella*, of the family *Rutaceae*, related to the orange, is a native to China and Japan. One of its good characteristics is that it will bloom very late in the spring or in early summer after all danger from frost is past. Indeed, it is called "the hardest of the citrus fruits" by several authorities for it is able to withstand temperatures as low as 15° F. without injury.

"The fruit of the kumquat ripens from October to January and it seems that it must require some colder weather to make the fruit color up and show its true beauty," according to John A. Cox, LUS Extension Horticulturist.

The kumquat may be propagated on almost any citrus rootstock, but apparently the most successful is the tri-foliate orange. On this stock it produces a low, dwarfish tree which is thoroughly dormant throughout the winter and thus in the most frost-resistant condition possible until late in the spring.

Kumquat grafted on suitable understocks, growing in five-gallon cans can be purchased from Shaffer Nurseries, Clearwater, Fla., at five dollars each. Also, Royal Palm Nurseries (wholesale only), Oneco, Fla., produce good kumquat plants.

The name kumquat is said to have

come from the Chinese phrase meaning "Gold Orange" (Chin kan). The variety descriptive of the kumquat known to Europeans was grown in 1178 A. D. by Mr. Han Yan chih'.

Thus, it has long been and still is cultivated in China, particularly in the vicinity of Canton, and the southern part of Japan in the citrus sections. It was introduced to Europe in 1846 by Mr. Robert Fortune, a collector for the London Horticultural Society, who brought back one kumquat plant along with many other plants collected in southernmost China. Shortly after its introduction into England by Fortune the kumquat was evidently taken to North America, because a kumquat tree grew in Brooklyn, under glass, a few years later.

As grown in the Gulf coast area and California's warmest interiors, the more common Nagami and Mame kumquat, at an age of from 10 to 15 years, reach a height of from 8 to 10 feet, with a top diameter of slightly smaller dimensions. They are of slow growth and for commercial culture may be planted rather close, from 8 to 13 feet apart, with the rows from 15 to 16 feet apart. They have been grown to some extent in hedge form with the rows about 12 feet apart and the plants approximately 5 feet apart in rows.

In south Louisiana the kumquat is grown mostly for ornamental purposes and the fruit with foliage is sold commercially in the section south of New Orleans as Christmas decorations and also for other decorative purposes.

Children, particularly, seem to enjoy the kumquat's sweet-sour flavor and aroma. The entire fruit may be eaten fresh "out of hand" as most youngsters do, but, although palatable and good they are not so desirable to adults as many other fruits and are little used in this way.

The fruits when preserved are excellent, but as all varieties are seedy this use of them is limited. Normally, the Chinese export considerable quantities in store jars. Kumquats are excellent for marmalade and jellies and as candied fruits, and are rather unique when used in this way be-

cause of the sweet, highly flavoured peel.

Nevertheless the orphaned citrus fruit, the kumquat, remains a novelty. Gleamings of a brighter kumquat future are made by *The Citrus Industry* published by the University of California press: "Grown on a small scale and properly prepared and marketed, the crop could prove would be no adequate market for the profitable. If widely grown, there would be no adequate market for the product." If a seedless variety, through hybridization, were developed, an extensive preserving and candying industry could be easily developed.

ASSOCIATION MAKES STRONG PLEA FOR 'SELL-IT-BY-THE-POUND'

(Continued from Page 5)

stores in that area that were advertising Florida oranges by the dozen. All others were experiencing amazing results in selling Florida citrus by the pound. Several large independent chains in this area that have recently changed from count to pound selling experienced results of 50 to 123 percent increase in their Florida citrus sales volume. This increase, however, was brought about by explaining to the consumer the advantages of pound selling and by displaying Florida oranges in bulk supplemented by generous supplies of 5 and 8 pound bags. It is expected that at the March 5 meeting of the Advertising Committee of the Florida Citrus Commission United Growers & Shippers and all others interested the pound selling idea will present further material in order to follow through on the citrus pound selling test and to urge that no advertising be approved until the market test facts are available.

Social courtesies have been emphasized in recent meetings of Leon County 4-H clubs, according to Mrs. Nellie D. Mills, home demonstration agent. In skits and by use of a movie the proper way to introduce people, use a telephone, and to act and talk at the table were demonstrated.

The Growers' Own Page

A recent letter from Dr. Werner Husmann to Florida Citrus Mutual has been submitted to THE CITRUS INDUSTRY with a suggestion that it be printed in the "Growers' Own Page." For what it is worth, the high points are reproduced here for consideration along with numerous other suggestions which have been given for improving the present situation.—Editor.

Florida Citrus Mutual
Lakeland, Florida

Dear Mr. Thomas
Dear Mr. Saurman:

I am the manager of a citrus grove producing about 200,000 boxes of fruit annually. I am a member of Mutual and sincerely believe that there is a need for such an organization.

I find myself more and more concerned about the policy statement which the directors of Mutual issued at the beginning of the season. I am concerned because I think the present policies of Mutual jeopardize its very existence. The major emphasis in Mutual has been on floor prices. It is time for us, as growers, to recognize the fallacy of what we are trying to do within the present framework of our organization.

We were warned of the impossibility of our undertaking at a conference held at the University of Florida in Gainesville last September. Economists from both State and Federal Agencies pointed out the dangers of establishing floor prices without a mechanism to control the flow of fruit into the channels of trade. We are making a big mistake by failing to heed this warning.

We are all aware of the fact that there are numerous schemes for circumventing the floor price established by Mutual.

If conditions in the industry deteriorate further we can look forward to the development of further schemes which will make the floor price ineffective. Most small growers gripe that the floor price is automatically a ceiling. There may be some truth in this statement at a weak market.

I am sure you will agree that it is easier to criticize the current program of Mutual than it is to propose an alternative course of action. With this in mind, I would like to make a proposal which I think will be of benefit to the entire citrus industry. There is a need for a neutral meeting place where both buyers and sell-

ers of citrus fruit can obtain the latest market information and negotiate sales. To meet this need, I propose that three or four small offices outside city limits on highways, with plenty of parking space available, be established at strategic points within the citrus belt. These offices should be established and maintained by Mutual, and each office managed by a man with wide experience in buying and selling citrus—a person who knows all the "tricks of the trade" possibly an experienced fruit buyer himself. It should be the function of this man to collect and make available to growers, birddogs, packers, and canners the following information: kinds, quantity, quality, bid, and asking prices of fruit currently available in his area. I would suggest that the above information be posted on a blackboard in the trading center as soon as received, and that any changes be recorded promptly. In addition to the current information appearing on the blackboard,—there should be available trade publications such as, the Green Sheet, Pink Sheet, the Blue Book, and all published market information pertaining to citrus.

Trading on the premises should be encouraged. The offices should be open to everyone—non-members—as well as members of Mutual.

Such offices would benefit the industry by:

(a) Providing **current** information on market conditions in the industry. At the present time there is no central place where a person can go to obtain such information. The grower is not sure of himself when he closes a deal. Such an office would be for him the only tangible item Mutual provides for his marketing problems. Your air conditioned headquarters mean nothing to him if it comes to selling his fruit.

(b) Eliminating much of the expense which cash buyers for fresh fruit and canners incur in their efforts to locate fruit.

(c) Giving the small grower the benefit of current market information, and thus a better chance of obtaining the market price for his fruit.

(d) Providing Mutual with first-hand information on market conditions, and a closer relationship with the industry, in particular, the small independent grower.

If Mutual is interested in the proposal which I have made in this letter, I would be very glad to assist

without any compensation in establishing, on an experimental basis, an office in Orange or Lake County.

The main point to remember is we have 9-10 million boxes more oranges and about 3 million boxes more grapefruit to market as of early January '52 against a year ago. To let the mid-season oranges drop on the ground is a very poor solution and could be done without any high powered marketing super-coop.

I would recommend taking this matter up with the marketing specialists of the C. C. C. and your good friends in Gainesville.

Yours very truly,

Dr. Werner Husmann, Manager
Apshawa Groves, Inc.

Route 2, Clermont, Florida
(Formerly Professor of Agricultural Economics at Clemson College, South Carolina and at the University of Florida.)

DrWH:mr

cc: Mr. Vernon Conner, Lake Jem,
Florida

Dr. Henry G. Hamilton, University of Florida

Dr. Wayne Heitz, University of Florida

BONDS FOR GRAMMAR SCHOOL ESSAYISTS

Two \$50 and one \$25 savings bonds will be given to the three Florida grammar school students who write the best essays on why they eat honey.

The contest is being sponsored by the Florida Beekeepers Association, of which Orren Davis, of Gainesville, is president. He said the contest is being held "to stimulate interest in honey, one of Florida's agricultural crops."

The contest closes at midnight March 15. It is restricted to students who have not passed the eighth grade and who are not more than 16 years old.

Arrangement for the earliest were worked out by Davis with the assistance of Agriculturist John D. Haynie of the University of Florida Agricultural Extension Service.

Rules have been mailed to the school superintendents in each county, who, in turn, will distribute them to the various grammar schools in their respective counties.

The contest was approved by the state department of education.

Hawaii Test Area For Control Of Oriental Fruit Fly...

While it is always possible that the destructive oriental fruit fly could be introduced into the United States as it was into Hawaii prior to 1946, entomologists of the U. S. Department of Agriculture and cooperating State, Territory and private agencies have developed — through their experience with the pest in the islands — the means of controlling it, should it ever reach the mainland of North America.

The oriental fruit fly lays its eggs on fruits and vegetables, preferring some to others. The maggots which hatch from these eggs riddle the fruit or vegetable with their tunnels, making the product unsalable and unfit for food.

In the event an infestation of these flies is ever found on the mainland, the control measures developed in Hawaii would call for: (1) quarantine of infested areas, permitting the shipment of treated products and those not subject to infestation; (2) mass production and release of parasites already available in Hawaii; (3) application of tested insecticides to the soil and to trees and plants that harbor flies; (4) sanitary procedures to prevent fruit fly breeding in waste fruits in orchards or in commercial fruits exposed in markets or roadside stands, and (5) establishment of the limits and degree of infestations by means of poisoned methyl eugenol traps placed in or near infested areas. These traps not only gather information on the intensity and extent of fly infestation, but also help in fly control. The traps attract only males, which are killed in great numbers before they have a chance to mate with female flies.

When the oriental fruit fly infestation was first discovered in the Hawaiian Islands, a number of agencies working as a unit soon learned that the flies could infest a large number of fruits and vegetables, and that they multiplied at an alarming rate. The fly created an emergency in Hawaii, and threatened to create one on the mainland as well.

The first control step was to tighten quarantines—to prevent movement of infested commodities out of infested areas. The entomologists knew this meant that methods of treating fruits and other products must be found to make them pest free. Other-

wise, growers of fresh fruits and vegetables in infested areas would not be able to move their products and would sustain heavy losses. Two fortunate discoveries helped. The entomologists found that ethylene dibromide was an effective fumigant, killing fruit fly maggots in fruit at extremely low concentrations, and that this chemical was not injurious to many kinds of fruits and vegetables. They also made studies which indicated that many of the important fruits and vegetables grown on the North American mainland were either unsuitable for infestation, or were infested only under extremely great fruit fly populations.

The entomologists now not only have effective insecticides and various types of sprays, but in Hawaii they have learned much about insect parasites that reduce fruit fly populations. The Territorial Board of Agriculture and Forestry sent explorers to the Philippines as early as 1947 to find parasites of the fruit fly. Later, entomologists of the Bureau of Entomology and Plant Quarantine, the Hawaiian Sugar Planters' Association, the University of Hawaii, and the University of California joined that agency in a world-wide search of tropical and subtropical areas for these beneficial insects. The Pineapple Research Institute participated in the project by making available its quarantine laboratory for receiving parasites sent in by explorers, and by providing other facilities. More than 150,000 insect parasites of many kinds were sent back to Hawaii. These were tested under quarantine in the laboratory and then mass-reared for liberation in the field.

Three species of parasites introduced into the Hawaiian Islands reduced fruit fly infestations in wild guava areas to the point where slightly less than half of the guavas on Oahu Island were infested during the summer of 1951, and those were not as heavily infested as at one time. Practically all guavas were heavily infested before the parasites were introduced.

Many of the fruits attractive to the fly are less heavily infested now and have some value even when allowed to ripen before picking. Formerly they were almost worthless because of heavy infestation. Fruits and veg-

etables that used to be infested when the flies were extremely abundant are now seldom attacked. The reduction in numbers of flies has reduced, although not eliminated, the possibility of chance infestations of oriental fruit flies reaching California and other sub-tropical areas on the mainland. The parasites have not yet reduced fruit fly populations on other islands as much as they have on Oahu, but there are indications that they may do so.

Studies to improve treatments for infested products, to perfect spray schedules, to find better lures to attract female flies, and to find out how climate affects fruit fly populations are being continued.

SHIPPING REGULATIONS WILL NOT BE SUSPENDED

An announcement made last Saturday disclosed the fact that USDA had refused to suspend grade and size regulations for this season. The matter had been under advisement for about two weeks and apparently concludes the effort headed by the Florida Independent Citrus Growers Association to have these regulations set aside.

Hearings were held, first in Lakeland and later in Orlando, at which advocates of the proposal, with Barney Cohen, president of the Independents, as the principal speaker, outlined their views. It was claimed that a vast market for ungraded fruit lay just at our door to the north and awaited only the opening of the door to take vast quantities of bulk shipments by truck at profitable prices.

Opponents of the measure, including spokesmen for the Citrus Commission, Florida Citrus Mutual and other organizations, and represented at the hearings by former Congressman J. Hardin Peterson, declared that the practice had once been tried to the great injury of the industry. Strict adherence to the Citrus Code was advocated by numerous speakers.

The Bible contains more references to laws and advice concerning agriculture than any other occupation of man.

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Are Wind Machines Suitable For Florida?

RICHARD R. FRISBIE

That question is being asked by a number of Florida citrus growers. In an effort to clarify the situation, Mr. R. L. Bryan and Mr. Frank Alexander, of the Lake Garfield Nurseries, were interviewed. This nursery is pioneering, and so far as known, has the only wind machine in operation in Florida.

These gentlemen report that the weather conditions in Florida have not been severe enough this year to gather any conclusive data concerning the operation of the machines under Florida conditions. However, they have gotten information on inversion which the weather department did not have. They have two thermometers, one at 4½ feet and one at 20 feet above ground. On cool mornings, the temperature at the level of the higher thermometer has been from three to four degrees warmer than at the lower level.

In California, where it is estimated some 4000 machines are in operation, they are said to be generally effective. In a report of a survey published in the California Citrograph, it is said that the lighting of a moderate number of heaters to supplement the wind machines soon gave a temperature rise of five degrees. There have been instances in which the combination of wind machines and heaters have given better results than either used alone.

It is also noted that windbreaks do not give added protection in California. Wind machines, it is pointed out, do not create heat, they mix the warm air with the cold air strata and equalize temperatures in the orchards. They hasten the drying of foliage and reduce potential freezing damage.

Solid ground absorbs the sun's heat most rapidly during the day and releases most radiant heat during the night. Loose ground and cover crops absorb less radiant heat and give off less.

Another California Report

The Fruit and Vegetable Review, another California publication, states that on nights of lowest temperature a few supplementary heaters (6 to 12 per acre) are usually necessary to raise temperatures above damaging levels.

Temperatures, according to this publication, may be raised three degrees at the optimum distance of 350 feet from the machines.

"Not For Us," Says Texan

Writing for his publication, Texas Farming and Citriculture, Harry Foehner says: "Wind Machines Not For Us." He then goes on to elaborate as follows:

"What about wind machines as frost protectors for Valley orchards?

"That question must often occur to Valley growers who pick up one of the California citrus magazines or see other stories about the devices western growers use to fight cold weather.

"We decided to ask Bill Friend, the associate county agent for Cameron, Hidalgo and Willacy counties about it and, as we expected, he had a ready answer.

"The Valley doesn't have temperature inversion as they do in California, he explained. There they have cold air from the mountains which gets beneath the layer of warm air from the ocean. By using wind machines they can drive off the cold air and let the warm air get down to the trees.

"A wind machine was tried out by Engelmann Gardens some years ago and there may have been others in the Valley but they did not work out for, as Friend explained, there was no ceiling.

"Certain types of orchard heaters probably offer the best protection under Valley conditions and Michigan State College has developed one which worked well on strawberries and small plants. Whether it would do the job in Valley citrus orchards is a question.

"One of the best bets in the Valley is a good windbreak, Friend said.

"Then there are the so-called "frost packs" which really are small units of "canned" heat which cost about a quarter apiece. They would cost about 10 cents an hour to operate but there would have to be one under each tree to do any good."

So there we have the situation as reported in California and Texas. As yet the question of suitability to Florida conditions remains unsolved. As one California authority says: "Each grove presents its own problem as to

the best method of cold protection. Probably a combination of wind machines and heaters provides the best protection for the average grove owner."

Citrus Facilities Used To Cure Hay . . .

Florida cattlemen are doing more than ever before in providing hay and other roughages for wintering cattle. A substantial number have installed special facilities for artificial drying of hay. At Winter Haven citrus processing facilities are being utilized to dry hay artificially. Mr. J. Hunter Hyer and associates, with the Florida Citrus Corporation, are drying hay in the citrus coloring rooms of their Winter Haven packing house.

The coloring rooms, in which oranges are artificially colored under high temperatures, have been modified to cure hay by the addition of a huge blower to circulate warm air through the baled hay. In the Winter Haven packing house the coloring rooms have a capacity of 900 bales each, where the hay is cured in about 100 hours of maintaining a temperature of from 90 to 120 degrees, with humidity as low as possible. Mr. Hyer states that best results have been obtained by bailing and placing the hay in the drying rooms within two hours after cutting. He believes that two crops of hay a year can be harvested and cured in these coloring rooms at a time when they are not needed for coloring citrus; one crop in July and another in September, just before the citrus packing and shipping season opens.

Mr. Hyer and his associates will use the hay in wintering a commercial herd of cattle at their 4200-acre ranch near Loughman, Florida. With so many citrus men going into the cattle business, this experiment may lead to expanded use of citrus coloring room facilities now idle much of the year.

Growers Told How To Strengthen Mutual

In his weekly news letter to members of Florida Citrus Mutual, N. F. Lavigne told growers they must surrender some of their present freedom if they expect Florida Citrus Mutual to do a perfect job for them.

In a signed article, the press chief quoted Lacy G. Thomas, of Groveland, Mutual president, as saying to growers that "you can't have your cake and eat it, too."

Mutual can do the job all right, the article asserted, but the grower must agree to regimentation.

"The perfect solution to all our troubles," it was said, "would be for Mutual to have complete control of everything from the tree to the wholesalers. Mutual could then run the industry just as it would be run if one person owned it."

The statement went ahead, however, to express "doubt" that such an occurrence will ever be achieved, "so Mutual will have to operate with something less than complete control."

"It has been enlightening to see so many growers . . . say in effect that they are willing to turn the whole thing over to Mutual," Lavigne continued, "but it is also plain . . . that a lot of folks are still jealous of selling their fruit to whomever they want, whenever they want, for whatever they want."

The article cautioned growers to keep in mind that no such organization as Mutual ever has been created before and "it is natural that there will be a certain amount of stumbling and fumbling at first."

"We at Mutual know that scores of groups are keeping a close watch on everything we do. They will form their own mutuals when they are convinced that we here in Florida have something that will work."

"Mutual is going through a very necessary evolution, and is suffering from growing pains," the article concluded, observing that "our present difficulties had to happen sooner or later and it's probably just as well to have it now and get it over with."

FARM OUTLOOK CALLS FOR WISE USE OF TIME, MONEY AND RESOURCES IN 1952

The 1952 outlook for agriculture and farm family living presents a challenge to rural people to spend time, money and resources wisely and to set new production records, according to Mrs. Bonnie J. Carter, home improvement specialist with the State Home Demonstration Department.



Prize winning store managers of the Kroger Company Company (Cincinnati), sellers of \$22,000,000 worth of Florida citrus and vegetable products annually, were entertained at breakfast at Jacksonville, on January 6, by officials of Citrus Mutual, Florida Citrus Commission, Florida State Chamber of Commerce, and of the State of Florida. There were 100 persons in the special party, touring Florida as the guests of their employer. Pictured here (l. to r.) are Advertising Manager Ralph Henry of the Commission; Secretary of State Robert A. Gray; Governor Fuller Warren; State Treasurer J. Ed Larson; Mrs. Warren; President Doyle E. Carlton of the State Chamber; the general manager of the party, Robert E. Donnelly (shaking hands with the Governor); President Lacy Thomas of Citrus Mutual; Mrs. Betty Inkrot of the Kroger Company; General Manager Robert C. Evans of the Commission; Executive Vice President Harold Colee of the State Chamber, and President M. H. Ellis of the Florida Chain Stores Council. Breakfast menu consisted of Florida products.

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XUM

PARATHION improves citrus quality

Higher quality fruit naturally means more profit to the grower. Comparative tests consistently show a marked improvement in the quality of fruit from parathion-treated trees.

PARATHION, THE ONE INSECTICIDE FOR MANY PESTS, GIVES ALL THESE ADVANTAGES:

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- Does not accelerate granulation
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In all cases, full coverage is necessary for best results.

AVAILABLE FROM NATIONAL MANUFACTURERS

Consult your local agricultural authorities for suggestions on dosages and application procedure. Write for Parathion Grower's Handbook.

AMERICAN Cyanamid COMPANY

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Agricultural Chemicals Division
Brewster, Florida

Citrus Production Report

As of February 1, 1952

FLORIDA

Florida citrus received beneficial rains toward the end of January after a dry, warm month. New growth is beginning to appear on the trees and an early bloom is likely unless affected by adverse cold weather. Weather conditions have been favorable for size development of the crop now being harvested. Oranges now being harvested are of excellent eating quality. Total harvest is running behind a year ago. Orange, grapefruit and tangerine shipments for fresh use are well ahead of last year, but utilization for processing is running behind a year ago. Florida processors have used about 13.6 million boxes of oranges this year compared with 16.3 million last year to the same date. For grapefruit 5.3 million boxes have been processed this year compared with 7.5 last year.

The estimate for Early and Mid-season oranges (including 1,200,000 Temples) is now placed at 42.0 million boxes; Valencias at 32.5 million; tangerines 5.0 million and grapefruit 36.0 million boxes. This compares with harvested crops of 36.8 million Early and Midseason oranges, 30.5 million Valencias, 4.8 million tangerines and 33.2 million boxes of grapefruit 1950-51.

Included in the Florida Early and Midseason orange totals are 1,200,000 boxes of Temple oranges, compared with 1,100,000 last year and 710,000 boxes for the 1949-50 crop. About half the Temples had been picked by the week of February 9.

UNITED STATES

The U. S. orange crop is now forecast at 117,700,000 boxes, an increase of 450,000 boxes over a month ago and is only slightly larger than the 116,810,000 harvested in 1950-51. An increase of 1,000,000,000 boxes in prospect for Florida Early and Mid-season oranges was only partially offset by a decrease of 500,000 boxes in the estimate for California Navel and miscellaneous oranges and 50,000 boxes for Arizona Valencias.

By February 1 about 32.3 million boxes of oranges had been harvested, leaving about 85.4 million boxes from the 1951 crop still available for use. Last year about 35.6 million boxes

By U. S. Department of Agriculture

had been harvested with 81.2 million boxes available for use after February 1. Processing uses this year have taken about 43.5 percent of the crop harvested to February 1 compared with 47.2 percent last year.

The total grapefruit crop is estimated at 40,730,000 boxes, an increase of 790,000 boxes over a month ago, but nearly 6 million boxes less than the 1950-51 harvest of 46,580,000 boxes. As in the case of oranges, an increase in Florida more than offsets a decrease in California. Harvesting of grapefruit is running behind a year ago due to the smaller tonnage taken by processors. Grapefruit harvested to February 1 amounted to about 14.2 million boxes of which fresh uses took 8.8 million boxes and processing uses 5.4 million. A year ago to February 1 fresh use had taken 9.9 million boxes and processing 10.9 million. Based on the February 1 estimate of production, about 26.6 million boxes of grapefruit are still available for harvest compared with about 25.8 million last February.

In Texas temperatures have been mild all winter and generally favorable except for low temperatures early in November. Rainfall has been scarce, but water for irrigation was generally adequate until the past month when rationing became necessary. Most trees that were pruned early and given good care are in a healthy condition. With the threatened scarcity of water, developments during February will have an important bearing on the extent of the 1952 bloom.

In Arizona the inside set of fruit has not turned out according to expectations based on the appearance of the outside set. While this was taken into account in the past months' estimates of grapefruit and navel and miscellaneous oranges, a further decrease in prospects for the Valencia crop is now indicated. The Arizona Valencia crop is now estimated at 500,000 boxes.

The past month has been exceedingly wet in most California citrus areas, except the Desert. Some erosion of hillside orchards resulted

from the heavy downpours occurring in short periods of time, but moisture was much needed in all these areas. Water rot and brown rot have shown up during this wet period and have reduced production prospects for some citrus crops.

Prospective production of navel and miscellaneous oranges declined during January. Frost injured fruit was a contributing factor in the reduced prospects with most of the loss occurring in central California with only a minimum amount of loss from frost injury in the Southern counties. Valencia orange prospects, however, are unchanged from a month ago with many weeks still left for the crop to mature and overcome earlier frost injury. Injury to Valencias from water rot does not appear to be as serious. However, Valencias are below normal size for this date and are in need of good growth during the next few weeks. As in Arizona, the Desert Valley grapefruit crop is not turning out according to earlier expectations and a drop of 170,000 boxes is estimated in the final outturn. Prospects for grapefruit in other California areas are also off with the heaviest decline being reported in Central California.

REVISION OF CONCENTRATED ORANGE JUICE STANDARDS PROPOSED:

The U. S. Department of Agriculture has announced a proposed revision of U. S. standards for grades of canned concentrated orange juice which have been in effect since 1943.

The revision proposes a Grade A (or Fancy) and Grade C (or Standard), as at present, but adds a style with sweetening ingredient added. Both Grade A and Grade C include characteristics of color, flavor, and absence of defects, and each has detailed requirements with respect to orange juice solids for various kinds of concentrations.

Interested persons may submit views or comments on the proposed revision during the next 30 days to the Fruit and Vegetable Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

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Should Citrus Be Sold ... By The Pound?

That was the question freely discussed at a meeting of citrus growers and shippers held at Winter Haven during the sessions of the Florida Citrus Exposition.

The suggestion was made by United Growers and Association of Orlando calling for a test of the proposal in key cities to get first-hand information on the attitude of buyers. Acting on this suggestion, the Florida Citrus Commission conducted a test in St. Louis, Mo., and a report of the preliminary test there was reported at the Winter Haven meeting. Further tests are being made in Washington, D. C., and Memphis, Tenn.

Ralph Henry, who made the St. Louis survey for the Citrus Commission, said that the survey was made at the retail level only, and did not reach the consumer. Generally, he said, the feeling of retailers was that an educational campaign would be necessary to inform consumers of the advantage of the system, but that the retailers were willing to go along if the Commission decided to launch such a program. He cited one chain store which had tried the pound-selling method for two years, but had abandoned the practice owing to resistance of housewives to buying from a bulk display.

Florida Citrus Mutual's Board of Directors passed a resolution commending the Commission for making the survey and urged continued effort along that line. The industry committee also passed a resolution urging further study of the project by the Commission.

Frank Roper of Winter Garden and Jack Welsh of Maitland, co-chairmen of a committee appointed by United Growers & Shippers Association which originated the "sell it by the pound" idea and presented it to the advertising committee of the Florida Citrus Commission issued the call for what they described as "a very important meeting to determine a plan of cooperation".

J. J. Parrish, Jr., president of United, said that the "pound selling" idea had "caught on" in the industry and that many factors in the trade, especially chain store buyers who account for a big portion of Florida fresh citrus sales, had promised cooperation with the commission and United in an effort to popularize that method

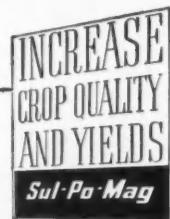
of sale.

"We are convinced that by demonstrating to the consumer that he gets more value for his money and that by

comparing the per pound price of citrus with the prices of competitive food items we can prove that citrus is a bargain," Parrish said.

Roper and Welsh, in calling the Winter Haven meeting, told members of the group to "plan to stay all day" to participate in the Exposition program, which included a demonstration of various methods of sale.

MAY WE SEND YOU THIS BOOK... FREE



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can get more profitable
crops with soluble magnesium

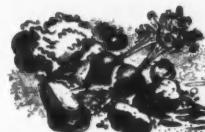
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MAGNESIUM
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Water-Soluble
Double Sulfate of Potash-Magnesia

THIS IS WHY GROWING CROPS MUST HAVE MAGNESIUM

It is required in the life process which gives plants their green color and keeps them growing★ Promotes earlier maturity on soils low in magnesium★ Enables crops to make better use of other plant foods★ Carries phosphorus to the growing and fruiting parts of the plant★ Necessary for the development of seed★ Promotes the formation of proteins in growing crops★ Stimulates growth of soil bacteria and fixation of nitrogen by legumes★ Increases the plant's resistance to diseases.



CITRUS AND VEGETABLES BOTH NEED MAGNESIUM

Many Florida growers who have observed the increased yields and quality of citrus fertilized with soluble magnesium are now using it with equally good results with vegetables. Most leading fertilizer manufacturers are supplying plant foods containing Sul-Po-Mag for use on vegetable crops. Sul-Po-Mag is a properly balanced combination of magnesium and potash, both in soluble form and immediately available to growing crops. Use it regularly for more healthy crop growth and more profitable yields.

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INTERNATIONAL MINERALS & CHEMICAL CORPORATION
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ask for a fertilizer containing **Sul-Po-Mag**

Hints For the Busy Housewife

BY ALICE L. CROMARTIE
FOOD CONSERVATION SPECIALIST, UNIVERSITY OF FLORIDA

FREEZING, CANNING CITRUS

Many Florida home-makers are freezing and canning Florida citrus for later use, knowing that it will come in handy when there will not be as much fresh fruit available as there is now. With the fine crop of Florida citrus coming to market now, we should use liberal amounts of fresh fruit in our menus and all of us will do well to freeze or can some for spring and summer use.

If you haven't put up citrus by one of these methods, you should try your hand at it.

Freezing Citrus

Frozen orange and grapefruit sections provide fresh fruit ready to serve when thawed.

Section fruit by slicing off both ends, placing fruit on a board, and slicing downward, following natural curve of fruit. Remove first section by cutting on both sides of membrane with a sharp knife and lifting out. Then use a dull knife to remove remaining sections. Insert knife under membrane near center or core and gently move knife upward. Then place knife at core and slide under section. Lift out and remove seed.

When enough sections are obtained to pack one container at a time, do so to prevent loss of vitamin C. Use a dry pack by sprinkling sections with $\frac{1}{4}$ cup sugar per pint. Pack in air-tight containers, seal and freeze at once. May be held one year at zero Fahrenheit.

Canning Citrus

Tin is best for canning citrus because it bars light and prevents destruction of vitamin C, color, and flavor. Canned as juice or segments, grapefruit is better than any other canned citrus fruit. So, in canning orange sections, it is preferable to can in combination with grapefruit—using equal parts of each. Grapefruit juice can be canned well, but no satisfactory method has been devised for keeping orange juice or orange segments canned for any extended period without loss of flavor. Addition of sugar to citrus when canning and freezing improves the flavor. When citrus is handled quickly, flavor and nutritive value are retained.

For canned grapefruit and orange sections, use firm fruit. Wash fruit. Cut a slice from each end, cutting tip ends of sections. Place cut end on board and slice downward in wide slices to remove peel rag from fruit. When segments are exposed, run blade of knife between section membrane and loosen segment from rag and seed. Pack sections alternately, orange then grapefruit, into cans. Place 2 to 3 tablespoons of heavy syrup in center of can as it is being packed. Make syrup by simmering 1 cup fruit juice with 2 cups sugar until sugar is dissolved. Place unsealed cans in a simmering water bath 1½ inches from top of can and exhaust 10 minutes or until center is hot. Center of can should be 180 degrees Fahrenheit. Seal immediately and process in a simmering water bath 180

degrees Fahrenheit for 10 minutes. Water bath should contain 1 quart water for every No. 2 tin used. At end of processing time, plunge cans into cold water. Label and store in cool dry place.

CITRUS GROWERS SEEK HELP OF CHAIN STORES

Headed by John A. Snively, Sr., Winter Haven grower-shipper-canner, a group of Florida Citrus growers have inaugurated a move to enlist chain store operators, heavy purchasers of Florida citrus fruits, in a campaign to increase the sale and consumption of citrus.

At a meeting held during the Florida Citrus Exposition, the chain stores were represented by J. E. Davis of Jacksonville. At this meeting a committee, headed by Mr. Snively, was named to work with the chain stores in promoting the movement. Other members of the committee are: A. M. Tilden, Winter Haven; T. J. Quincy, sales manager of Pasco Packing Co.; L. L. Recker, sales manager of Adams Packing Association, Auburndale; Fred Johnston, sales manager of Florida Citrus Exchange.

THERE'S NO ROOM FOR GUESS WORK

When you plan your procedure in connection with the raising of good citrus crops. The business of forecasting the weather, the market or the extent of insect pests involves a certain amount of conjecture, but when it comes to the method of developing good fruit time and experience have taken the guesswork out of the proper production methods.

And there is no guesswork in the nature of your fertilizers when you use Florida Favorite Fertilizers. Years of use by hundreds of Florida growers have demonstrated that these fertilizers rank at the top of the list.

We deliver direct to your groves in our own trucks

Florida  **Favorite**
FERTILIZER, INC.

Old Tampa Road

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Will Your Hungry Acres Be Fed This Year . . . ?

From Fertilizer Review

American farmers will be ready and willing but probably unable to fill their demand for an estimated 914 million dollars worth of fertilizer this year. This estimate is based on USDA historical statistics and on farm income and expense estimated for 1951 and 1952. Remember: This is an estimate of demand, not of consumption.

If past experience, flavored with common sense and a liberal sprinkling of current economic thinking can be considered a reliable guide, fertilizer demand this year will be at least 2.8 percent over the estimated 1951 consumption of 19,500,000 tons and 9.2 percent above the 18,349,000 tons used in 1950.

It is comparatively easy to estimate 1952 demand. But—present Federal restrictions on the use of sulfur and possible future Governmental interference with the normal workings of our economy make it next to impossible to predict that actual fertilizer consumption in 1952 will be much greater than consumption in 1951.

During the 21 years from 1930 through 1950, an average of 3.263 percent of the money farmers charged to their "farm production expense account," was spent for fertilizer. The percentage ranged from 2.509 in 1932 to 3.773 in 1949, a grand difference of 1.264 percent. Since 1937, however, farmers have not spent less than 3.089 percent of the money they allocate to farm production expense for fertilizer. UFA study shows that it would not be "out of line" to assume that of all the money farmers earmark for farm production expense in 1952, 3.75 percent will be spent for fertilizer.

Since USDA estimates in the July-September, 1951, issue of THE FARM INCOME SITUATION that 1952 agricultural production expense will be an all-time high of \$24.375 billion, it is fairly safe to assume that farmers will want to spend 914 million for fertilizer during the same period—if the fertilizer is available!

One further step must be taken in order to estimate the tons of fertilizer which farmers will want in 1952 because the purchasing power of the dollar will probably be lower in 1952

than it was in 1951. In 1950, an average ton of fertilizer cost \$40.88, 44 percent above the 1910-14 average price. Last year, the fertilizer price index rose to 153, an increase of 9 points or 6.25 percent. Department of Agriculture estimates for 1952 show that the average price of fertilizer will probably advance 5 percent above 1951. If this proves to be

true, fertilizer will cost an average of \$45.61 per ton this year. By dividing the estimated 1952 dollar demand for fertilizer—\$914 million—by \$45.61, the estimated average cost of a ton of average fertilizer, it becomes evident that our farmers will try to buy 20,039,000 tons of fertilizer in 1952.

The moral of the story is "Buy Fertilizer Today." Delay will cost you money and you may not get the fertilizer you need.

Spuds Johnson says Florida newspapers have done more for their towns than their towns have done for them.

For land's sake

apply d/p Dolomite

this season*

* You'll get your pay-off in quality . . .

and that means extra profits in any language . . . when you apply d/p DOLOMITE to your soil, to citrus groves, pastures and fields.

d/p DOLOMITE is that little something EXTRA that makes everything else you do more profitable. Why? Because d/p DOLOMITE restores acid-alkali balance, unlocks "acid-frozen" natural plant foods and provides essential calcium and magnesium. It makes fertilizers give better results, too.

In very large pastures, where overhead must be held to a minimum, low-cost high calcium limestone and high calcium limestone screenings provide calcium alone at an economical price. Write us for folder and information today.

DOLOMITE Products, Inc.

FIELD REPRESENTATIVES

E. J. Meyer, P. O. Box 328, Arcadia, Florida	B. T. Rainey, Jr. 1617 South Orange Ave. Ocala, Florida
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OCALA, FLORIDA

Plants at Lebanon (Levy County)
and Sarasota, Florida

Canning Industry Pays Back Wages Under Wage-Hour Law

MAURICE L. RICHARDSON
FIELD REPRESENTATIVE

Are employers in the canning industry generally complying with the amended Fair Labor Standards Act? Does the record indicate that management has a firm grasp of the Fair Labor Standards Amendments that went into effect on January 25, 1950? Recently released statistics on the first full year of operations under the amended Federal Wage and Hour Law show that there is room for improvement.

According to the 1951 annual report of the U. S. Labor Department's Wage and Hour and Public Contracts Divisions, 51 percent of the establishments investigated in this industry during the past fiscal year were found to have violated the Act's minimum wage, overtime pay or child-labor provisions.

"The 1951 record makes it clear that greater efforts on the part of some members of the canning industry would pay off in reduced liabilities for back wages owed employees," points out Wm. R. McComb, the Divisions' Administrator. His report shows that a total of \$109,725 in back wages was paid to 3,287 employees, as a result of the Divisions' activities. This sum does not include amounts awarded by courts to employees who exercised their statutory right to sue for back pay and liquidated damages.

"Although most employers know that the amendments raised the minimum wage to 75 cents an hour from 40 cents, the Divisions found that a sizeable minority of establishments—18 percent of those investigated—had failed to observe this requirement when paying some of their employees," states McComb.

"Even more extensive were overtime pay violations, found in 34 percent of the investigated establishments. Employers should remember that the amended Act continues to require payment of at least time and one-half the employee's regular rate of pay for all hours worked in excess of 40 in the workweek, except where the Act specifically provides otherwise. What the amendments did was to define the regular rate to include all remuneration for employment except certain specified payments."

Failure to comply with the Act's child-labor provisions was disclosed in 12 percent of the investigated establishments, McComb noted. The child-labor requirements set a minimum age of 16 for most jobs with 18 as the minimum for occupations designated hazardous by the Secretary of Labor. Employment of boys and girls of 14 and 15 years of age is permitted in a few types of jobs—such as office and sales work—under strict restrictions on hours and working conditions.

The Administration wants members of the industry to know that the violations found last year were not representative of the compliance record of all employers whose employees come within the provisions of the Act. The Divisions' policy is to make investigations where there is reason to believe that violations will probably be found. Moreover, experience demonstrates that the great majority of employers intend to comply with the Act; in most cases, failures are due to misunderstandings about the statutory provisions.

To assist the canning industry in attaining full compliance, McComb invites any employer who has questions about the Federal Wage and Hour Law to inquire of the nearest regional office of the Divisions. These offices are located in the following cities: Boston, New York, Philadelphia, Birmingham, Cleveland, Chicago, Kansas City, Dallas, San Francisco, and Nashville.

Rural Common Sense....

By Spuds Johnson

Many people these days are discouraged because headlines scream with news of government scandals, and peace—international and domestic—seems far away, if not impossible. Why try, many say, to strive for better things and make

plans for the future?

Lest the farmers and others of this nation hit the snags of mental depression and hopelessness, they should take a look into the past and draw from it hope for the future.

How many farmers have said recently that the future is too bleak to be optimistic and plan for higher goals? Is the national and international situation hopeless?

Perhaps a look back through time will give hope since the future seems uncertain.

Consider the plight of Florida's citrus growers during the big freeze of '94 and '95, the Mediterranean fruit fly back in the days of 1929-30 and other days of frustration. Did those problems, that seemed unsurmountable at the time, end the citrus industry?

What if the cattlemen had given up and failed to plan ahead when salt sickness, pests, and diseases plagued their animals and threatened to end livestock production in the state? Look at Florida's livestock production record today!

And where America and the world, so dependent upon the United States, had farmers quit during the depression days of the '30s and the dust bowl days of the same era?

Would there even be a United States had the colonists thrown up their hands in despair when faced with Indian attacks, crop failures and famines?

Countless problems have faced farmers in days gone by and each seemed as baffling as those facing today's generations. Yet history shows that our people have emerged from all these well-nigh catastrophic events stronger, wiser and more conscious of the hidden abilities of free men.

So look up, America, there's a continuing fight ahead—a fight for freedom. Is it worth the price? Ralph Waldo Emerson said: For what avail the plough or sail, or land, or life, if Freedom fail?

Boys of the Tavares and Eustis 4-H clubs have applied more than three tons of fertilizer to Crooked Lake at Camp McQuarrie during the past month. Jack T. McCown, assistant Lake county agent, directed them in the work.

LAKELAND ENGINEERING ASSOCIATES, INC.

A GROUP OF PROFESSIONAL ENGINEERS SPECIALIZING IN THE
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LAKELAND, FLORIDA

Citrus Keeps People From "Falling Apart"

Not even the most hopped-up advertising copywriter has yet tried to sell folks on the idea they would come unglued if they didn't eat oranges, grapefruit, tangerines, limes, lemons and kumquats. Yet it's true, according to authorities on nutrition, that Vitamin C (ascorbic acid) is "essential to the integrity of the cement substance which lies between the cells of the body's various tissues and keeps each cell properly set and supported." (See USDA Miscellaneous Publication No. 546 "Principles Of Nutrition and Nutritive Value of Food".) This publication points out that citrus fruits are a "standard source of Vitamin C." Citrus fruits and tomatoes combined contributed 30% of the total supply of Vitamin C in the U. S. in 1951. All fruits and vegetables contributed 93% of the supply indicating the great importance of these commodities in the national diet.

According to the National Research Council, a moderately active man needs 75 milligrams of Vitamin C a day. He can get it by eating one medium size orange, that is, a three-inch orange, the kind that packs 200 to the box. Or he can get it from one-half a medium size grapefruit, that is, one 4 1/4 inches in diameter, that packs 64 to the box.

None of this holding one's nose and taking a spoonful of some substance that tastes like the morning after New Year's Eve, because the doctor says it's good for you. Taking Vitamin C via citrus is no more of a chore than playing post-office.

Citrus also offers a bonus of other valuable nutrients. Oranges contain some carbohydrates in the form of sugars which serve as ready energy sources. They also contain moderate amounts of iron, some Vitamin A and some Vitamin B complex. Lemons and grape-

fruit offer similar nutrients, except Vitamin A.

MICHAEL AGAIN TAKES GRAND AWARD FOR BEST CITRUS FRUIT PACKAGE

A. B. Michael, owner of Deerfield Groves at Wabasso, made a repeat performance at the Florida Citrus Exposition in Winter Haven when he took the grand award for the best package of fruit exhibited during the exposition. Mr. Michael gained the top award for a similar exhibit last year. This year's winning box was a standard nailed box of size 70 grapefruit, which was awarded a perfect score of 1000 points by the judges.

Mr. Michael was presented a silver service by Jay Whitaker, of the Florida Agriculture Research Institute, Winter Haven, as the sweepstakes winner. He will also get an extended trip to Northern markets as a part of his prizes.

Mr. Michael has long been known as one of the leading growers of the state and Deerfield groves has enjoyed the reputation of producing some of the best citrus fruit of the Indian River section.

TAKE A TIP FROM YOUR CITRUS TREES

Feed

Energized Vertagreen®

If your citrus trees could talk, they'd tell you that energized Vertagreen is the plant food they need for strong, healthy growth. That's because Vertagreen is especially prepared for citrus growers in this area. It's the better-balanced plant food with added growing power—growing power that feeds completely, makes finer quality fruit and puts extra profits in every grove. See your Armour agent today for sure! Place your order for energized Vertagreen.

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Jacksonville, Florida

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The LYONIZER

Department

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Reports Of Our Field Men . . .

PASCO AND EAST HILLSBOROUGH COUNTIES E. A. McCartney

We have had several welcome rains in this district and the citrus trees are budding and no doubt within two weeks they will be in full bloom.

Growers are top dressing and getting ready to put on nutritional spray which will be applied around March 1. In most cases this spray will be a copper-oil-zinc application. Scale in some groves has been giving some trouble where the oil application was neglected last Fall which was an economy measure on the growers part, but they have found out that it was a mistake.

The vegetable deal is very active just now especially in Plant City and Webster sections and bringing fairly good prices. Berries are in good volume, but the citrus prices are still very unsatisfactory.

SOUTHWEST FLORIDA Eaves Allison

All signs point to an early Spring in this section, with a heavy flush of growth showing up at this time — Feb. 15th. — on citrus trees. The promise of a big bloom is also in evidence now.

The problem of establishing a minimum price on the trees for our oranges and grapefruit will be solved when it is approached with a true perspective in regard to economic laws and a realistic consideration of what handling costs can be absorbed.

Vegetable prices are low and some crops of cabbage, cauliflower, pepper, egg plant and tomatoes remaining in the field. Spring planting is going ahead as usual and will no doubt find a good market at harvest time and blot out the red ink on some of the Fall operations.

Flower cut is picking up with the coming of warmer weather. Morning fog and heavy dews are making regular disease control efforts especially necessary. Use of Lyons fertilizers will help insure a good crop again this season.

WEST CENTRAL FLORIDA V. E. Bourland

Fruit prices are still unsatisfactory. Some growers are hold-

ing for better prices. Lots of pineapples are on the ground. The rains we are having have started growth and bloom in most groves, also rain is very good for cucumbers that have just been planted. Early planted melons are still looking bad from cold and windy weather.

The cabbage market dropped to about the same level as citrus. Most pastures look frost bitten, but rain and warm weather should soon change the color.

WEST CENTRAL FLORIDA Joseph E. Mickler

The most welcome incident in the past month was the rainfall that went over five inches in 36 hours over most of this section. Coupled with the fact that no damaging cold followed. This past month, too, has seen quite a few groves being picked of fruit, and while the prices have been far off the relief of most to get the fruit off and gone is marked. Trees are pushing out heavy bloom and with the rain healthy growth should follow.

Melon growers for the most part have been fortunate in protecting the new vines, and if weather allows this section will be able to ship some early melons.

The moisture level too is responsible for a surge of activity in pasture fertilization. Hay supplies are beginning to lower and the cattleman is looking to his grass to carry his cattle on into Spring.

SOUTH POLK, HIGHLANDS, HARDEE & DESOTO COUNTIES C. R. Wingfield

With three or four showers in the past month our moisture condition is in fairly good shape. With this moisture there has been activity in applying a top dresser which is of great importance at this time. Additional nitrogen now will aid in the quality of the bloom and help set and develop the new fruit. A weak tree will not set as much fruit as a healthy one. The trees are showing pin head bloom with some more advanced than others. At this time it appears that we will have a good bloom if weather conditions permit.

Careful consideration should be

given to the type of post-bloom spray that is used. All insects have been very active during the winter months and scale crawlers are active. Let one of our representatives discuss this problem with you.

POLK COUNTY

J. T. Griffiths & J. K. Enzor, Jr. Good rains fell during the first half of February in most of Polk county. However, by the 20th of the month some people were irrigating in southern Polk county. In most groves soil moisture was quite satisfactory and growth was beginning to show. Most growers will have completed their top dresser applications by the end of February.

In late February a few growers were applying oil sprays under circumstances where there had been too much scale carry-over from last Fall. Oil sprays for scale at this time offer an opportunity for minimal damage from oil and maximum coverage. Where no crop is present on the trees and where no new leaves have not been unfolded, excellent coverage can be obtained with minimum gallons per tree. Bloom will be sufficiently advanced so that growers will be applying their post-bloom sprays in many groves by mid-March. Arsenic might be included in this spray on grapefruit and copper should be used if Melanose control is required. If only sulfur is to be applied this spray might be delayed until such time as rust mites are present.

PINELLAS COUNTY

T. D. Wason

Conditions in Pinellas and Hillsborough counties are very good. Citrus trees are looking better at this time of the year than I have ever seen them. We have had about a perfect season as could be asked for. From all indications there will be another uniform bloom and another heavy crop.

Most everyone has sprayed for purple mites and red spider and generally speaking have them under good control.

There is quite a lot of interest among dairymen and cattlemen for Spring applications of fertilizer. They realize the advantages they get from an early start.

Here's hoping that prices on Valencia give all grove owners a reasonable margin of profit.

ADVERTISEMENT — LYONS FERTILIZER COMPANY

**Uncle Bill Says:**

Heard a feller say the other day that the only trouble with the fruit price situation was that Florida growers had gotten to where they wasn't satisfied with legitimate prices and felt that they was bein' hurt if they didn't get a whoopin' big profit every season . . . could be that in some of our good years we have been spoiled a little, but any time a grower has to sell his crop at less than production cost they ain't nothin' to this business about bein' spoiled . . . even the biggest merchant and manufacturer in the world can't do business very long when he's sellin' his goods at a loss.

Fer our money the growers of Florida deserve every good year they've ever had, not only 'cause they're the finest group of business folks anybody could want to meet . . . but 'cause of the years when the weather 'n pests 'n marketin' problems has made 'em operate at little or no profit at all.

Course the citrus fruit business is the best business we know of but it ain't all a bed of roses, and it takes a lot more'n jest the desire to be a grower in order to be one . . . the Florida grower has got to be a highly trained specialist. He's got to recognize both his problems and the answers to 'em, if he is really goin' to be successful, and if he has problems out of the ordinary he's got to know who to call on to help solve 'em.

Yep, the Florida grower is a far cry from bein' a two-bit farmer . . . even if he only has a small grove he's got to have the know-how to make it produce, and to produce the sort of fruit that the market wants.

So when some guy comes along and says the growers git too much money for their crops, we tell 'em to average up the 10-year income of most any grower, consider the investment he has, realize the problems he meets every year and those more serious ones which crop up every now and then and then figure out that the Florida grower is just a good sound business operator, who normally makes a good return on his investment . . . and is blessed with the good fortune to live in the best state in the greatest nation in the world.

Fer our money they ain't no better folks than Florida growers.

WORLD CITRUS PRODUCTION CONTINUES TO EXPAND

World production of citrus in 1951-52 is expected to continue the long-time upward trend which has been in evidence for the past 4 decades. The output of the 4 major citrus crops—oranges (including tangerines) and mandarins, grapefruit, lemons and limes—is indicated to total 389 million boxes in the 1951-52 season, compared with 380 million in 1950-51 and the 5-year (1935-1939) average of 274 million. Of the expected production in the current season, 310 million boxes are oranges, 45 million are grapefruit, 30 million are lemons, and about 4 million are limes. The United States is expected to produce 175 million or 45 percent of the 1951-52 world total, including 39 percent of the oranges, 89 percent of the grapefruit, and 42 percent of the lemons.

FILM WRAPPINGS EXTEND STORAGE LIFE OF LEMONS

The storage life of lemons may be extended 2 to 3 weeks and the fresh quality retained by wrapping the fruit at the market city in any of several different transparent films and holding at 50° F., say plant scientists of the U. S. Department of Agriculture.

In prepackaging tests conducted in New York City, H. W. Hruschka and J. Kaufman of the Bureau of Plant Industry, Soils, and Agricultural Engineering, found that lemons held at 50° F. kept without loss of weight or shriveling for 1 to 4 weeks when wrapped in either perforated or non-perforated Pliofilm or moisture-proof cellophane; 1 to 4 weeks in non-perforated, semi-moisture-proof cellophane; 1 to 2 weeks in non-perforated cellulose acetate paper; and 1 week in kraft paper bags with cellophane windows. Unwrapped lemons stored at the same temperature had lost nearly 5 percent in weight at the end of 4 weeks.

Shelf life, as measured by loss in weight and shriveling, was reduced 25 to 30 percent by storage at 70° F. However, some of the film wrapped fruit was still salable at the end of 4 weeks, but all of the unwrapped fruit had to be discarded at the end of the second week.

The findings are reported in H. T. & S. Office Report, No. 261. A limited number of copies are available and one may be obtained from W. T. Pentzer, Plant Industry Station, Beltsville, Md., while the supply lasts.

USDA PURCHASES CONCENTRATED ORANGE JUICE

The U. S. Department of Agriculture has announced that it has purchased 181,825 cases of twelve No. 3 cylinder cans of concentrated orange juice (3 to 1 ratio) for distribution to school lunch programs and other eligible outlets. Delivery will be made during the period February 18 through March 14, 1952.

The purchase was made at an average price of \$6.65 per case, the equivalent of \$1.54 per gallon. This is the commodity cost, f.o.b. shipping point, and does not include transportation to destination.

The purchase, made in Florida, is equivalent to 784,120 gallons, and was made from funds authorized under Section 32 of Public Law 320, 74th Congress, to widen the market outlet for agricultural commodities available in quantities which are burdensome to their producers.

Abundant agricultural production will help the free world defend itself during these troubled times and it will be a powerful factor for good when peace — however long delayed — finally comes. — Under-secretary of Agriculture C. J. McCormick.

USDA ANNOUNCES LEMON EXPORT PAYMENT PROGRAM

The U. S. Department of Agriculture has announced it will make effective on January 28 an export payment program to encourage exports of fresh and processed lemons during the current marketing season.

The program provides for payments up to 40 percent of the export sales prices, basis f.a.s. United States ports, to be limited by the maximum rates established for individual products, and is similar to a recent export program on lemons which terminated on November 30, 1951.

This program was developed under Section 32, Public Law 320, 74th Congress, as amended, which authorizes use of certain funds to encourage the exportation of agricultural commodities through export payments.

Announcements containing full details of the program are now being mailed to fruit exporters and members of the citrus industry.

Fifty-four thousand schools over the nation participated in the school lunch program in 1951. More than a billion meals were served to pupils under the program.

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Citrus Fruit Group To Meet In Florida This Month

The Citrus Fruit Advisory Committee, representing growers, processors and distributors from all parts of the United States, will meet in Florida March 24-27 to review and make suggestions on citrus research and related activities of the U. S. Department of Agriculture.

This will be the eighth meeting of the committee, which is organized under the Research and Marketing Act of 1946.

A. V. Saurman, general manager of Florida Citrus Mutual, Lakeland, and vice chairman of the committee, is making local arrangements for the meeting, with the assistance of the other Florida members, J. J. Parrish, Jr., president of the Nevins Fruit Company, Inc., Titusville, and Raymond D. Robinson, vice president of Dr. P. Phillips Companies, Orlando.

The committee will meet at the University of Florida March 24, in joint session with the technical committee of the Southern Regional Committee on Marketing Citrus to discuss marketing research that is under way or needed. Speakers there will include Provost J. Wayne Reitz and Director Williard M. Fifield of the agricultural experiment station. Director Fifield is regional administrative advisor for the project.

A general session will be held in the auditorium of Citrus Mutual at Lakeland March 25, with Dr. Byron T. Shaw, administrator of the agricultural research administration of the Department of Agriculture.

In the afternoon, the first of a series of inspection trips to various research laboratories and stations will begin. The committee will first inspect the laboratory of the bureau of agricultural and industrial chemistry at Winter Haven, and review current research on utilization of citrus. The next morning the group will visit the citrus experiment station at Lake Alfred, and in the afternoon will drive to Orlando to inspect the laboratories of the bureau of plant industry, soils, and agricultural engineering, and of the bureau of plant entomology and plant quarantine. Production problems and research needs will be reviewed.

The final meeting on Thursday morning, March 27, will be an executive session at the Citrus Mutual headquarters in Lakeland to draft recommendations and suggestions

which will be sent to Secretary of Agriculture Charles F. Brannon and the various agencies of the department.

GARDEN LEAFLET FOR THE SOUTHEAST NOW READY

Home gardeners of the Southeastern and Central Southern States now have available a revision of the U. S. Department of Agriculture leaflet on fruits and nuts, especially prepared for this region. It takes up the requirements and qualities of 17 fruits and one nut, the pecan, listed by varieties and arranged in charts based on suitability to specific areas. The States covered are North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, and Louisiana.

In addition to kinds and varieties, the leaflet takes up planting and care and gives a suggested arrangement for a half acre fruit and nut garden. A copy of the Leaflet (L 219) may be obtained free from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

TOURISTS CAME TO

FLORIDA 500 B. C.

Five hundred years before the birth of Christ tourists came to Florida!

Ripley P. Bullen, assistant archaeologist of the Florida Board of Parks and Historic Memorials, explains that these "tourists" are dated by the types of tools and implements found in state excavations and mounds.

That some came from what is now Georgia is proved by vessels of steatite or soapstone brought by them. This rock, which was quarried to make these vessels, is not found any nearer.

"Earlier settlers of the Everglades developed tools made of shell bone," says the archeologist, "because suitable stone was not available. Many were of the same types and forms as those made of stone in the north. They also used sharks' teeth as carving tools."

Having reached Florida, most of these "tourists" settled down, got sand in their sandals, and became permanent residents. Hundreds of years later their descendants greeted the first Spanish who named them Timucua, Calusa, Tequeste, Jaega, and Ais Indians.

'VOICE OF U. S. AGRICULTURE' ON LATIN-AMERICA FARM TOUR

Everett Mitchell, the radio "Voice of Agriculture" in the United States, and as a representative of the Department of Agriculture, the National 4-H Club Foundation and the U. S. Department of State, is making a 25-day tour of 11 Latin American nations to interview U. S. youths now living on farms in those countries under an inter-American student exchange program designed to promote scientific farming.

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